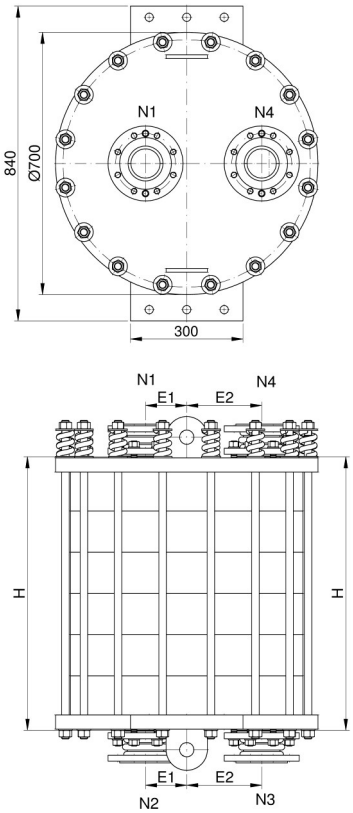
Graphite Annular Groove Heat Exchanger RA/WA Series

Data Sheet (RN-12)

Design Parameters

-1 bar to +6 (+10) bar max. allowable pressure
-30 (-60)°C to +180 (+200)°C max. allowable temperature



Materials Used and Material Options

Graphite	Phenolic formaldehyde resin-impregnated graphite GAB GPX1 / GPX1T resp. GPX2 with lower resin content (optional)
Reinforcement	Carbon fiber fabric (Type RA/WA7.1 and RA/WA7.2: standard 6/3 resp. 6/6 bar)
Gaskets	None (fused discs)
Steel parts	Pressure plates: carbon steel (optional stainless steel) Tie rods, nuts, screws: stainless steel

We recommend using our GAB HX PTFE bellows on the graphite nozzles. Bellows ordered will be fitted to the heat exchanger.

For technical data please see GAB works standard WS 1270.

Transfer Areas / Dimensions

Type	Number of discs	Transfer Area [m²] 3/3 bar [2]	6/3 bar [2]	6/6 bar [2]
RA/WA-7.4	02	0,7	0,7	0,6
RA/WA-7.4	04	1,4	1,4	1,2
RA/WA-7.4	06	2,1	2,1	1,8
RA/WA-7.4	08	2,8	2,8	2,4
RA/WA-7.3	02	1,1	1,1	1,0
RA/WA-7.3	04	2,2	2,2	2,0
RA/WA-7.3	06	3,3	3,3	3,0
RA/WA-7.3	08	4,4	4,4	4,0
RA/WA-7.3	10	5,5	5,5	5,0
RA/WA-7.2	02	1,9	1,8 [1]	1,6 [1]
RA/WA-7.2	04	3,8	3,6 [1]	3,2 [1]
RA/WA-7.2	06	5,7	5,4 [1]	4,8 [1]
RA/WA-7.2	08	7,6	7,2 [1]	6,4 [1]
RA/WA-7.2	10	9,5	9,0 [1]	8,0 [1]
RA/WA-7.2	12	11,4	10,8 [1]	9,6 [1]
RA/WA-7.2	14	13,3	12,6 [1]	11,2 [1]
RA/WA-7.2	16	15,2	14,4 [1]	12,8 [1]

Type	Number of discs	Transfer Area [m²] 3/3 bar [2]	6/3 bar [2]	6/6 bar [2]
RA/WA-7.1	02	2,3	2,2 [1]	2,0 [1]
RA/WA-7.1	04	4,6	4,4 [1]	4,0 [1]
RA/WA-7.1	06	6,9	6,6 [1]	6,0 [1]
RA/WA-7.1	08	9,2	8,8 [1]	8,0 [1]
RA/WA-7.1	10	11,5	11,0 [1]	10,0 [1]
RA/WA-7.1	12	13,8	13,2 [1]	12,0 [1]
RA/WA-7.1	14	16,1	15,4 [1]	14,0 [1]
RA/WA-7.1	16	18,4	17,6 [1]	16,0 [1]
RA/WA-7.1	18	20,7	19,8 [1]	18,0 [1]
RA/WA-7.1	20	23,0	22,0 [1]	20,0 [1]
RA/WA-7.1	22	25,3	24,2 [1]	22,0 [1]
RA/WA-7.1	24	27,6	26,4 [1]	24,0 [1]
RA/WA-7.1	26	29,9	28,6 [1]	26,0 [1]
RA/WA-7.1	28	32,2	30,8 [1]	28,0 [1]
RA/WA-7.1	30	34,5	33,0 [1]	30,0 [1]

[1] Typ …-C with carbon fibre reinforcement
[2] e.g. „6/3 bar“ means: design pressure on the cooling side -1/+6 bar / on the process side -1/+3 bar

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RA/WA Series

Main Dimensions

Type	Number of discs	H depending on channel arrangement / Nozzle Diameter (Standard)											
		< 4 Channels				4-10 Channels				> 10 Channels			
		H [mm]	N1-N4 DN	E1 [mm]	E2 [mm]	H [mm]	N1-N4 DN	E1 [mm]	E2 [mm]	H [mm]	N1-N4 DN	E1 [mm]	E2 [mm]
RA/WA-7.4	02	330	25	0	220	330	50	0	220	-			
RA/WA-7.4	04	410	25	0	220	410	50	0	220	-			
RA/WA-7.4	06	490	25	0	220	490	50	0	220	-			
RA/WA-7.4	08	570	25	0	220	570	50	0	220	-			
RA/WA-7.3	02	370	50	0	220	370	80	0	220	-			
RA/WA-7.3	04	490	50	0	220	490	80	0	220	-			
RA/WA-7.3	06	610	50	0	220	610	80	0	220	-			
RA/WA-7.3	08	730	50	0	220	730	80	0	220	-			
RA/WA-7.3	10	855	50	0	220	855	80	0	220	-			
RA/WA-7.2	02	430	50	0	220	470	80	0	220	-			
RA/WA-7.2	04	610	50	0	220	650	80	0	220	-			
RA/WA-7.2	06	790	50	0	220	830	80	0	220	-			
RA/WA-7.2	08	970	50	0	220	1010	80	0	220	-			
RA/WA-7.2	10	1155	50	0	220	1195	80	0	220	-			
RA/WA-7.2	12	1335	50	0	220	1375	80	0	220	-			
RA/WA-7.2	14	1515	50	0	220	1555	80	0	220	-			
RA/WA-7.2	16	1695	50	0	220	1735	80	0	220	-			
RA/WA-7.1	02	470	50	0	220	510	80	0	220	590	100	185	185
RA/WA-7.1	04	690	50	0	220	730	80	0	220	810	100	185	185
RA/WA-7.1	06	910	50	0	220	950	80	0	220	1030	100	185	185
RA/WA-7.1	08	1130	50	0	220	1170	80	0	220	1250	100	185	185
RA/WA-7.1	10	1355	50	0	220	1395	80	0	220	1475	100	185	185
RA/WA-7.1	12	1575	50	0	220	1615	80	0	220	1695	100	185	185
RA/WA-7.1	14	1795	50	0	220	1835	80	0	220	1915	100	185	185
RA/WA-7.1	16	2015	50	0	220	2055	80	0	220	2135	100	185	185
RA/WA-7.1	18	2235	50	0	220	2275	80	0	220	2355	100	185	185
RA/WA-7.1	20	2460	50	0	220	2500	80	0	220	2580	100	185	185
RA/WA-7.1	22	2680	50	0	220	2720	80	0	220	2800	100	185	185
RA/WA-7.1	24	2900	50	0	220	2940	80	0	220	3020	100	185	185
RA/WA-7.1	26	3120	50	0	220	3160	80	0	220	3240	100	185	185
RA/WA-7.1	28	3340	50	0	220	3380	80	0	220	3460	100	185	185
RA/WA-7.1	30	3565	50	0	220	3605	80	0	220	3685	100	185	185

Nozzle	Name
N1	Product / Medium II inlet
N2	Product / Medium II outlet
N3	Service / Medium I inlet
N4	Service / Medium I outlet

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